

## **ABSTRACT OF THE DISCLOSURE**

The invention enables even a CPU having low processing performance to find an HMM output probability by simplifying arithmetic operations. The dimensions of an input vector are grouped into several sets, and tables are created for the sets. When an output probability is calculated, codes corresponding to the first dimension to n-the dimension of the input vector are sequentially obtained, and for each code, by referring to the corresponding table, output values for each table are obtained. By substituting the output values for each table for a formula for finding an output probability, the output probability is found.